3-4 Years

- Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').
- Recite numbers past 5.
- Say one number for each item in order: 1,2,3,4,5.
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals.
- Solve real world mathematical problems with numbers up to 5.
- Compare quantities using language: 'more than', 'fewer than'.
- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.
- Understand position through words alone – for example,

"The bag is under the table," –with no pointing.

- Describe a familiar route.
- Discuss routes and locations, using words like 'in front of' and 'behind'.
- Make comparisons between objects relating to size, length, weight and capacity.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc.
- Combine shapes to make new ones - an arch, a bigger triangle etc.
- Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc.
- Extend and create ABAB patterns – stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'

Good morning and thank you for coming to our Maths meeting.

While you are waiting please have a read through the Development Matters Statements in case you have any questions.

These are relating to EYFS

Reception

- Count objects, actions and sounds.
- Subitise.
- Link the number symbol (numeral) with its cardinal number value.
- Count beyond ten.
- Compare numbers.
- Understand the 'one more than/one less than' relationship between consecutive numbers.
- Explore the composition of numbers to 10.
- Automatically recall number bonds for numbers 0–10.
- Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
- Compose and decompose shapes so that children recognise a shape can have other shapes *within* it, just as numbers can.
- Continue, copy and create repeating patterns.
- Compare length, weight and capacity.

Early Learning Goal

Number

Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns

Verbally count beyond 20, recognising the pattern of the counting system; - Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; - Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Rush Green Primary School

Maths Workshop
Friday 25th January 2024

Our ambition for all children leaving the Early Years Foundation Stage:

- To develop a strong grounding in number
- Be able to count confidently
- To develop a deep understanding of numbers to 10 and the relationship between them
- To develop positive attitudes and interests in mathematics and to be confident to 'have a go'
- Be observant and look for patterns and relationships (spot connections)
- Talk to adults and peers about what they notice and to not be afraid to make mistakes

DE

Nursery

LG

How?

- Keyworker activities
- Focused activities
- Daily math teaching
- In play and continuous provision

LG

3-4 Years

- Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').
- Recite numbers past 5.
- Say one number for each item in order: 1,2,3,4,5.
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
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"The bag is under the table," –with no pointing.

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- Extend and create ABAB patterns – stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'

Strands

- Number
- Shape
- Space and Measure
- Patterns

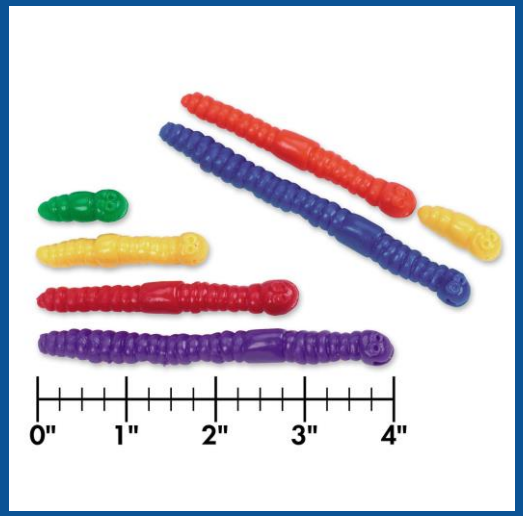
LG

Terms

- Finger numbers
- Cardinal principle
- Subitising

LG

Long, short, big, small?



Examples

- Number

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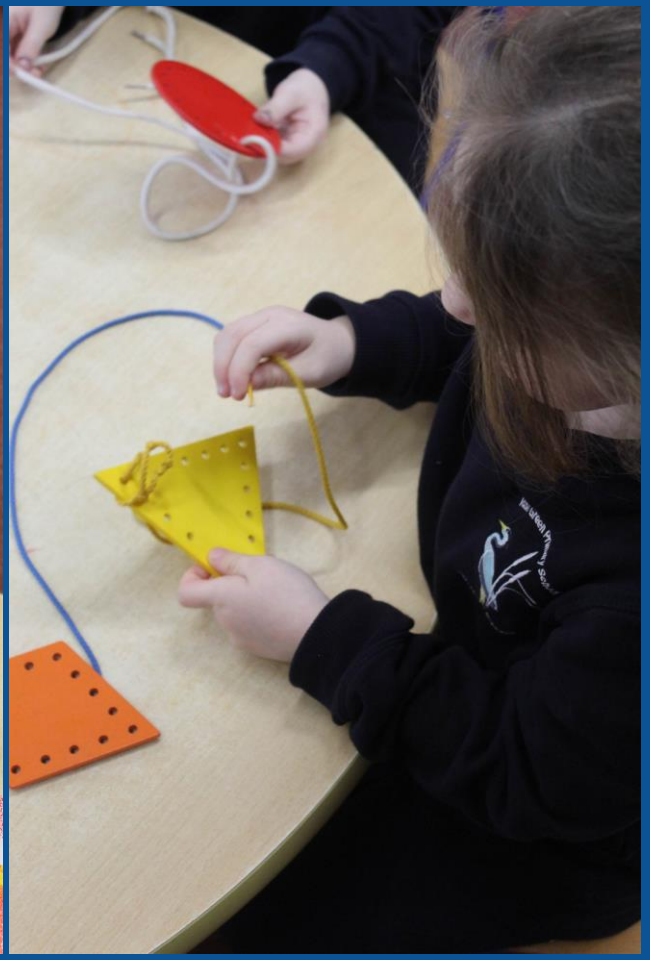
Examples

- Shape



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Examples

- Patterns

Examples

- Space and Measure

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How do we teach your child in EYFS?

- Maths in real life situations - daily
- Indoor and outdoor Maths tables – independent and focused activities
- Whole class lessons

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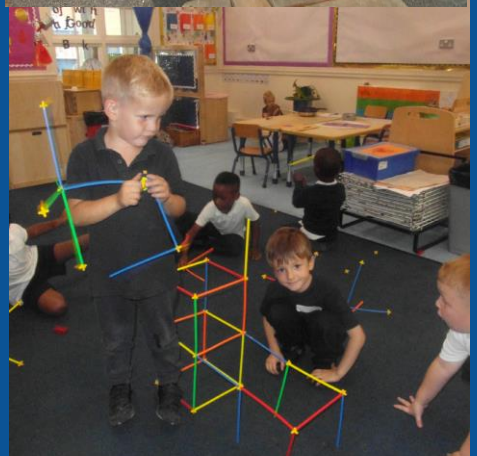
Reception



The Early Learning Goal for Mathematics

Maths is divided up into two strands:

- Numbers
- Number Pattern

Early Learning Goal
Number Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
Numerical Patterns Verbally count beyond 20, recognising the pattern of the counting system; - Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; - Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

DE

Terminology- what does this mean?

Subitise	Subitising is when you are able to look at a group of objects and realise how many there are without counting.
Composition	Composing a number is putting together two numbers (two parts) to make a larger number (whole), like joining 2 and 4 to make 6
'Automatic Recall'	Recalling facts without use of manipulatives or rhymes
Number bonds	The parts that create the whole, for example the number bonds to make 4 (0+4, 1+3, 2+2, 3+1, 4+0)
Number pattern	Number patterns are groups of numbers that follow rules, in counting past ten the one remains in the place of the tens while the ones column continue to increase till we reach the next 10.

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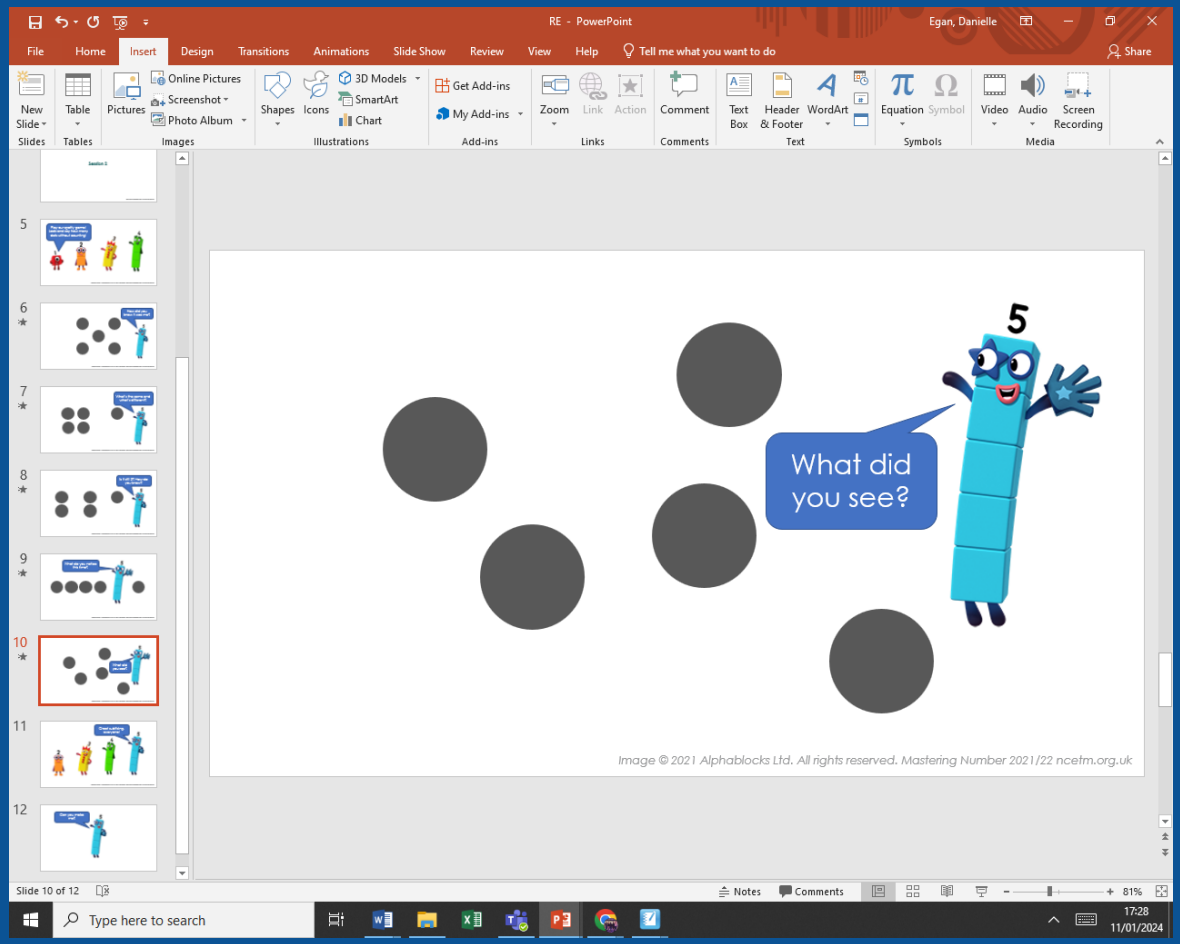
ELG: Mathematics (NUMBER)

What does this look like?

Subitising



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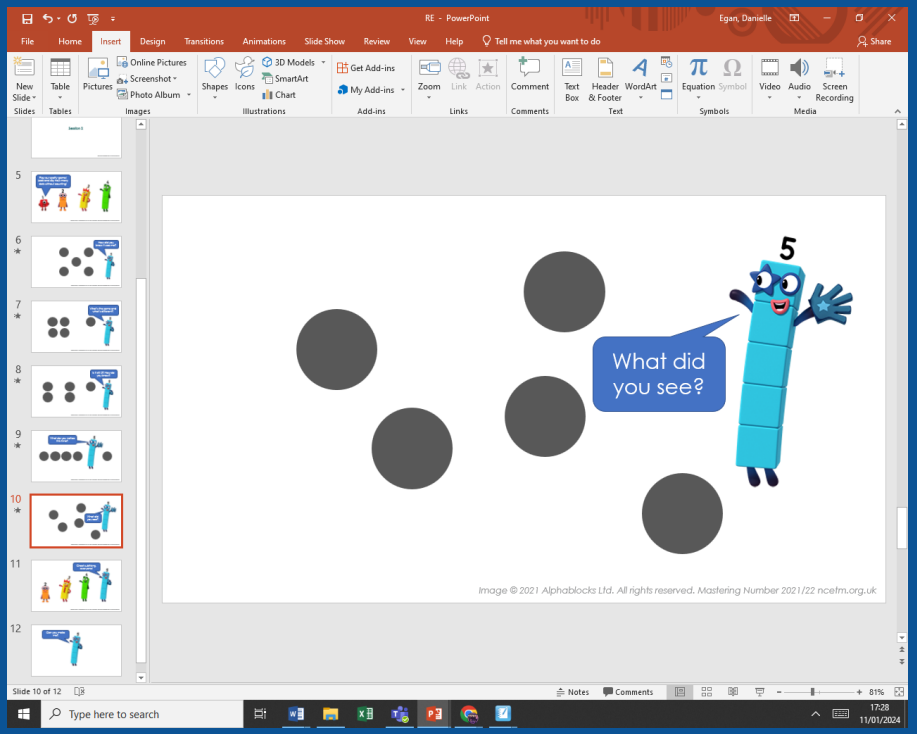
ELG: Mathematics (NUMBER)

What does this look like?

Subitising



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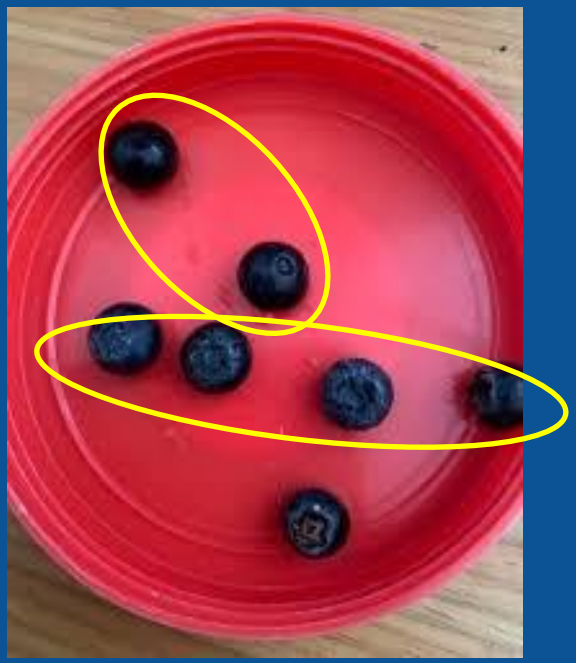
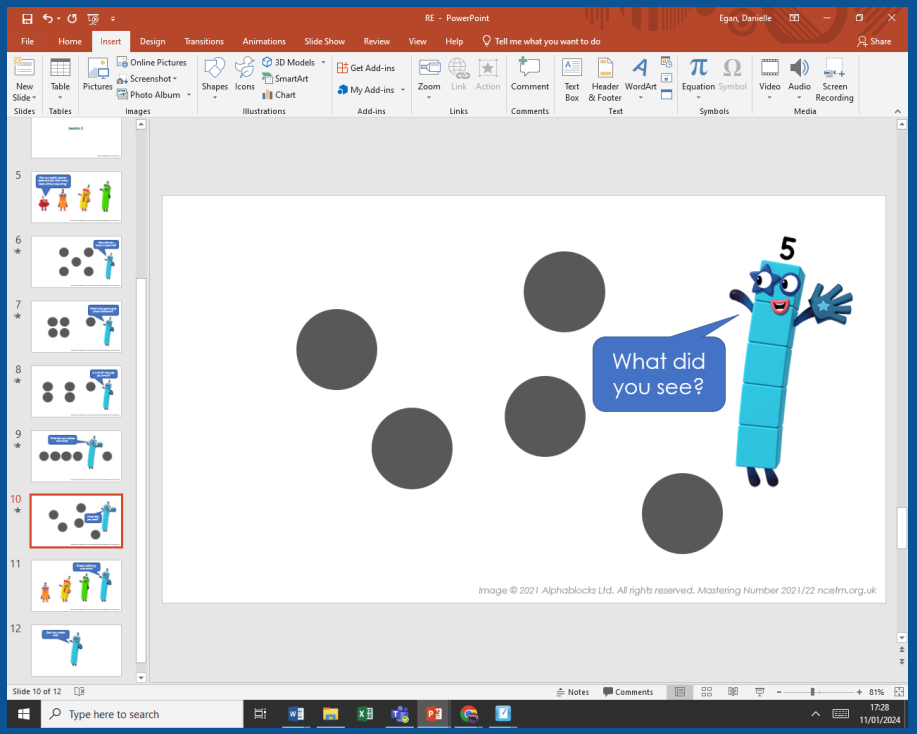
ELG: Mathematics (NUMBER)

What does this look like?

Subitising





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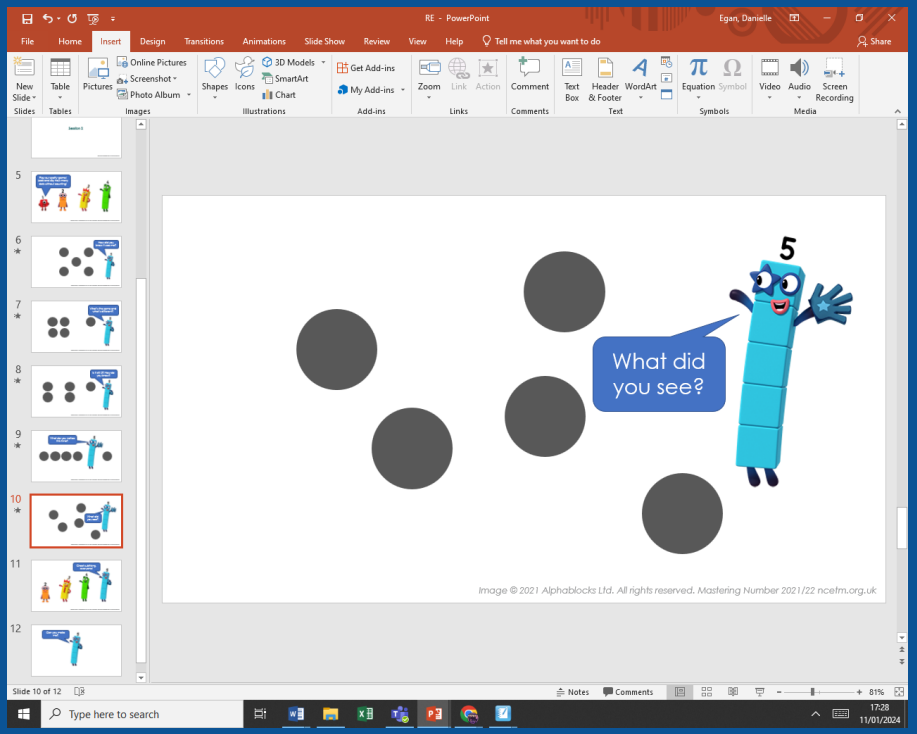
ELG: Mathematics (NUMBER)

What does this look like?

Subitising



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ELG: Mathematics (NUMBER)

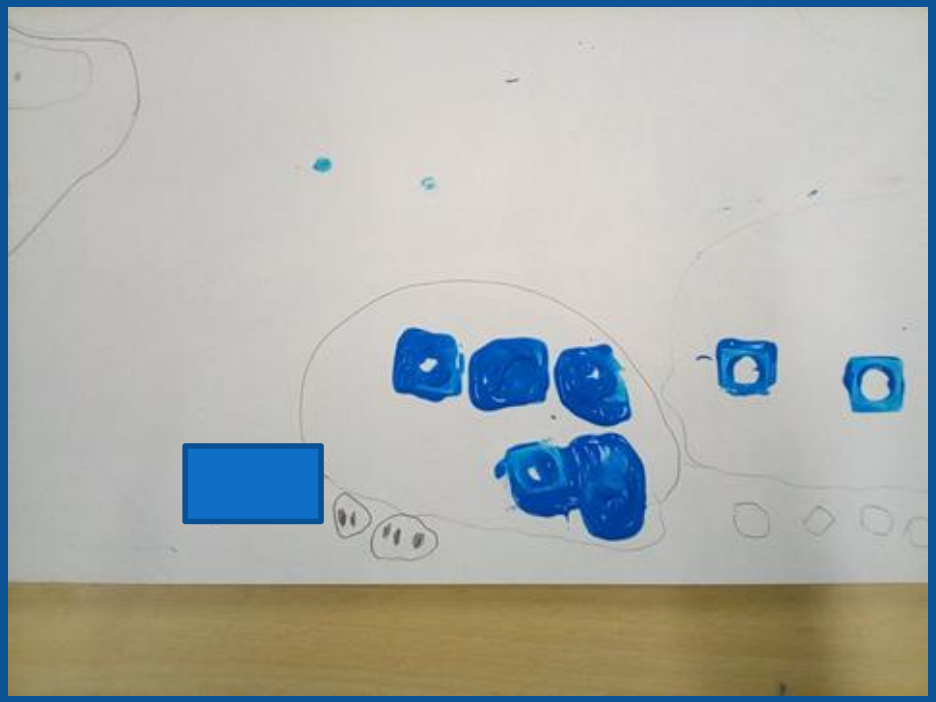
What does this look like?

Composition of numbers to 10

"I have made a stamp of 5, there's 3 at the top and 2 at the bottom"

X shows me these two numbers on each hand.

"So 3 is a part and 2 is a part, when they are together they make 5!"



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ELG: Mathematics (NUMBER)

What does this look like?

Automatic recall of number bonds 1-5

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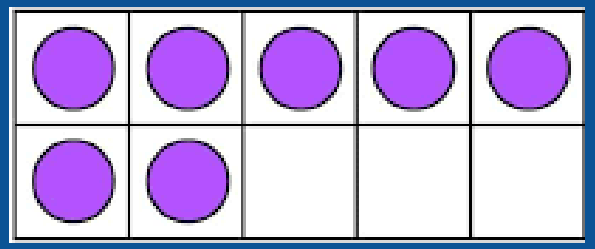
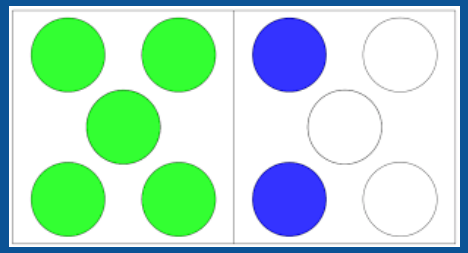
Composition of 6-10

'5 and a bit'





Here are a range of different examples of how we see the number 7 as '5 and a bit'. This strategy helps children to visualise the number 7 using the manipulatives we are using in school.

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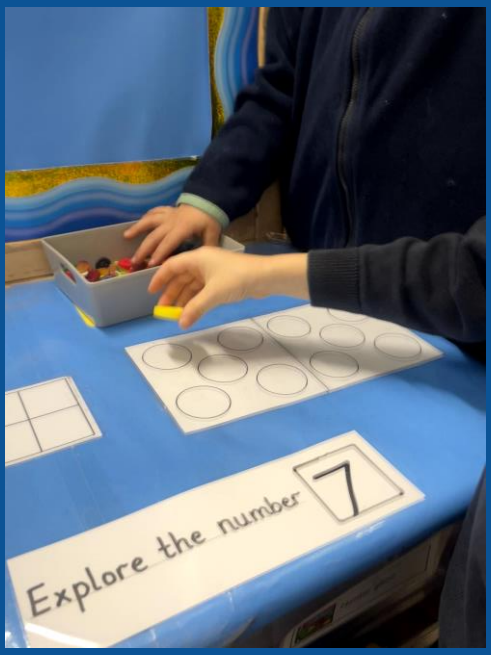

Explore the number
7

Year 1 Transition

September - Transition

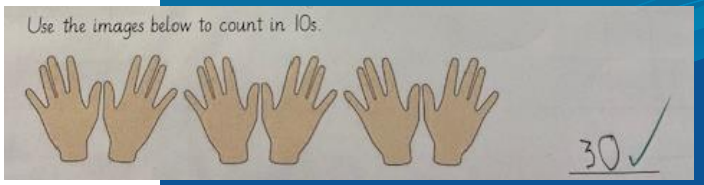
- Make use of the outside and shared areas to enable children to continue to access child-initiated activities
- Move from Development Matters and ELGs to National Curriculum for Year 1
- Strands of Maths in the NC:

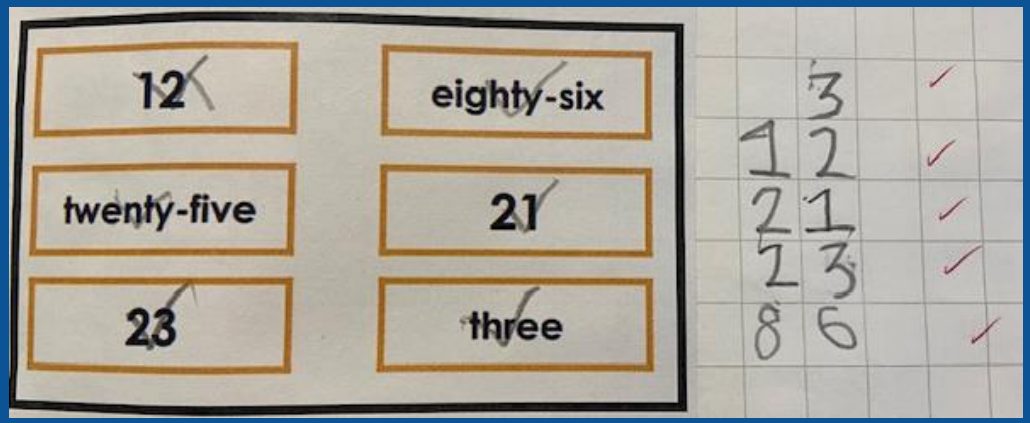
- Number and place value
- Addition and subtraction
- Multiplication and division
- Fractions
- Space, shape, measure

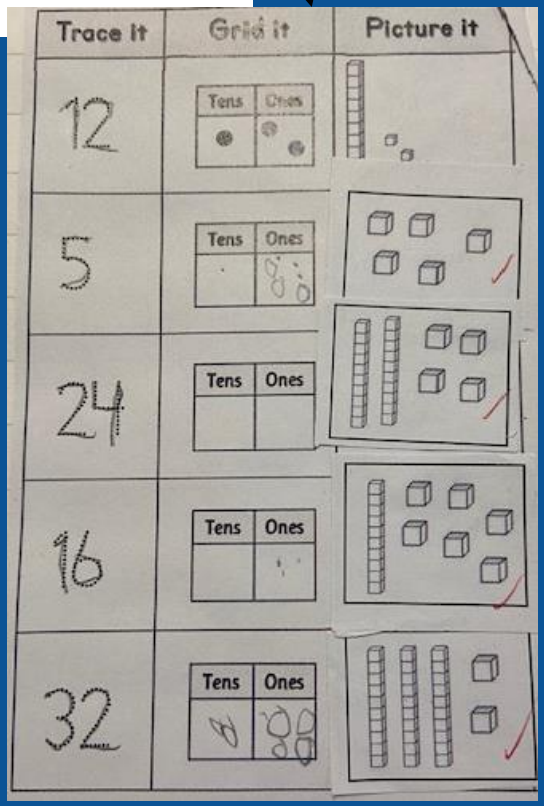
Number - number and place value

Pupils should be taught to:

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
- given a number, identify 1 more and 1 less
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words



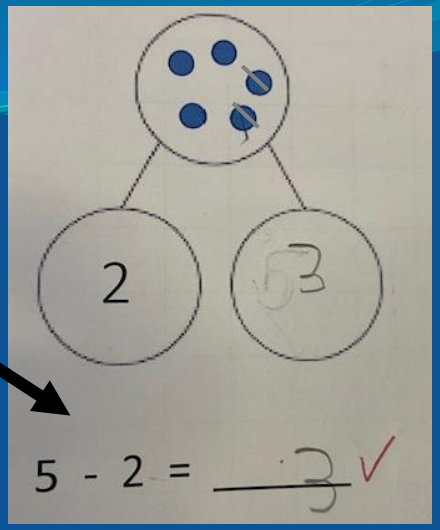


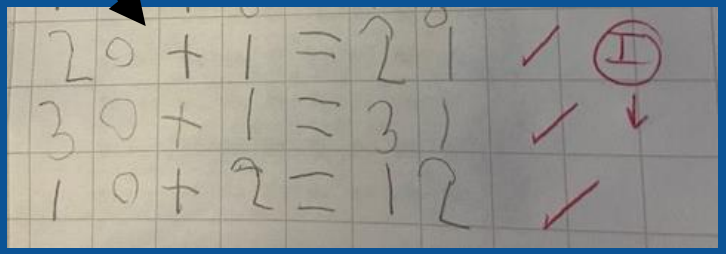


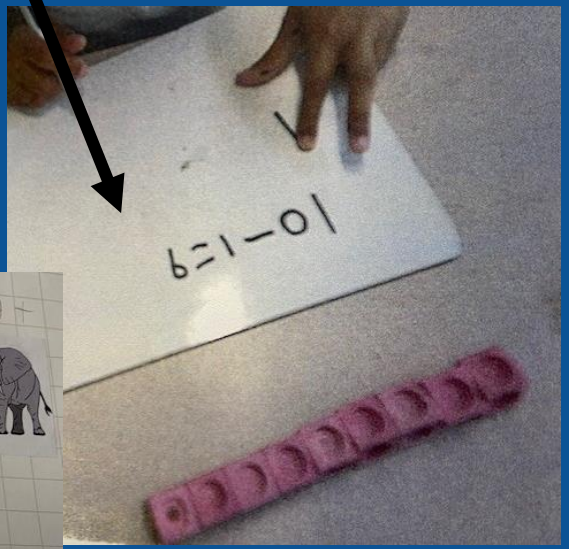
Number - addition and subtraction

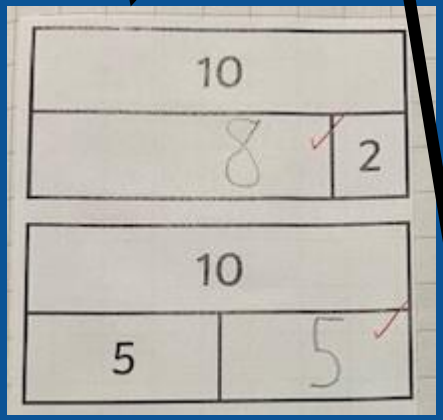
Pupils should be taught to:

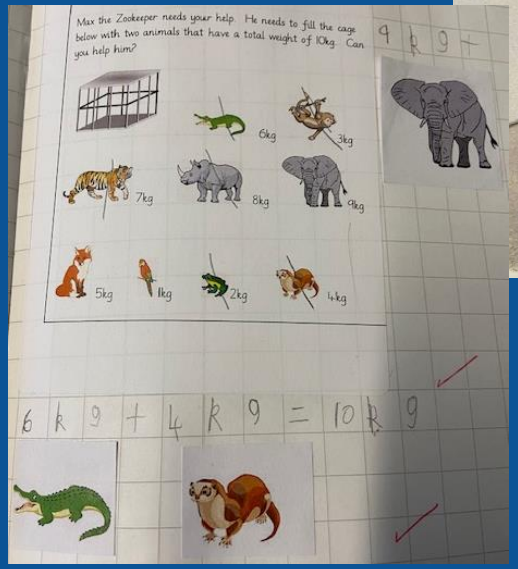
- read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including 0
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9

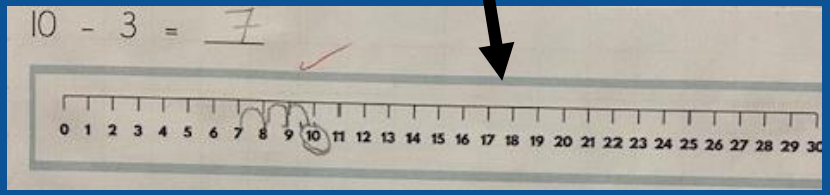








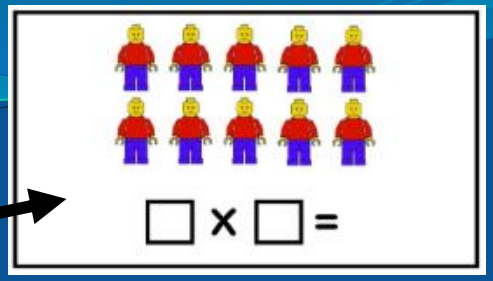


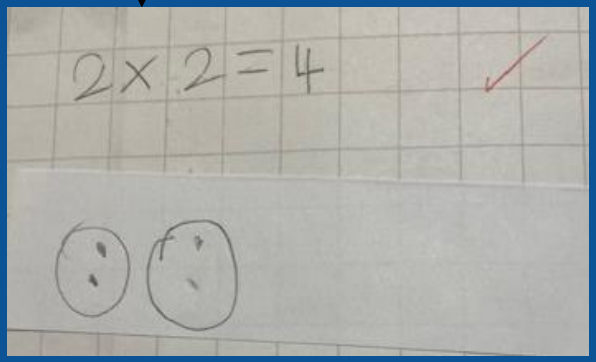


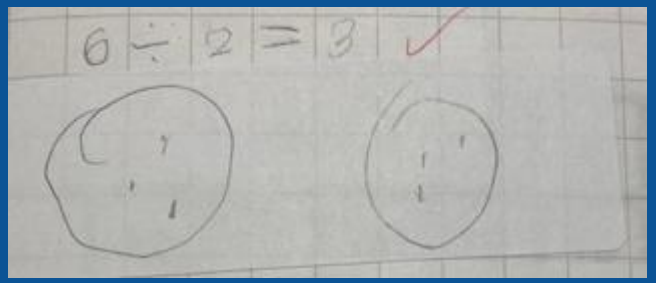
Number - multiplication and division

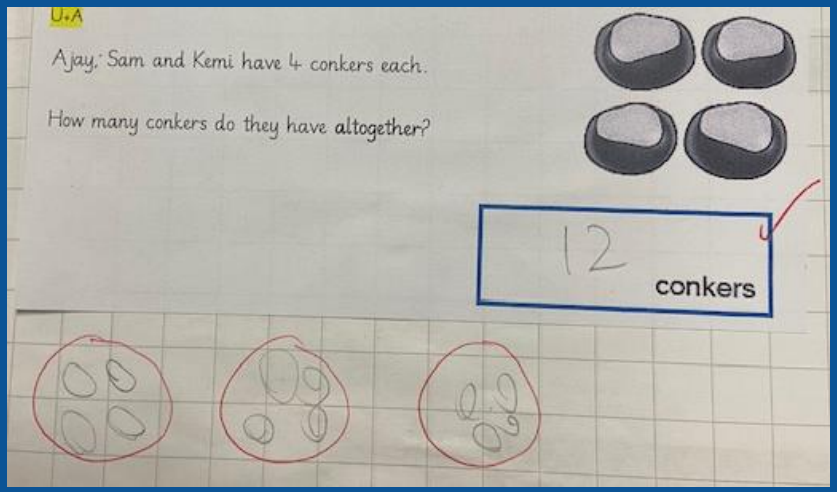
Pupils should be taught to:

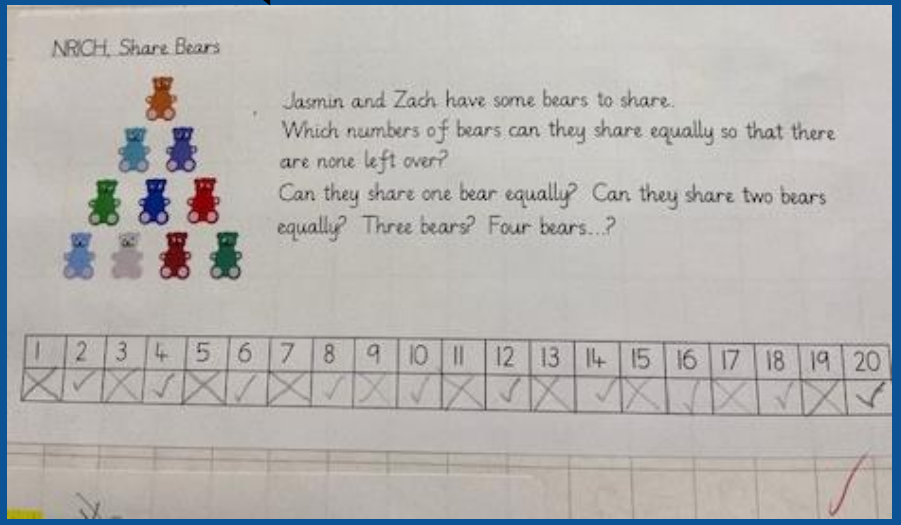
- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher







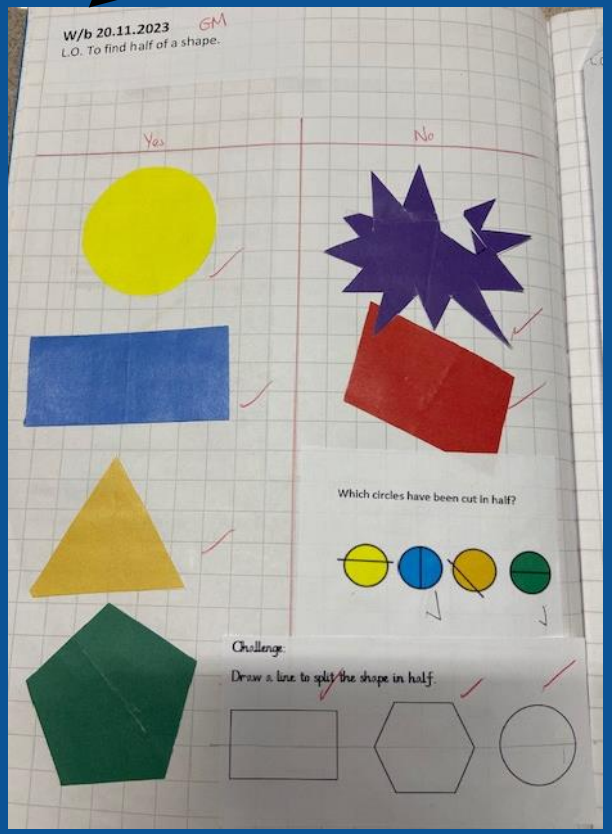


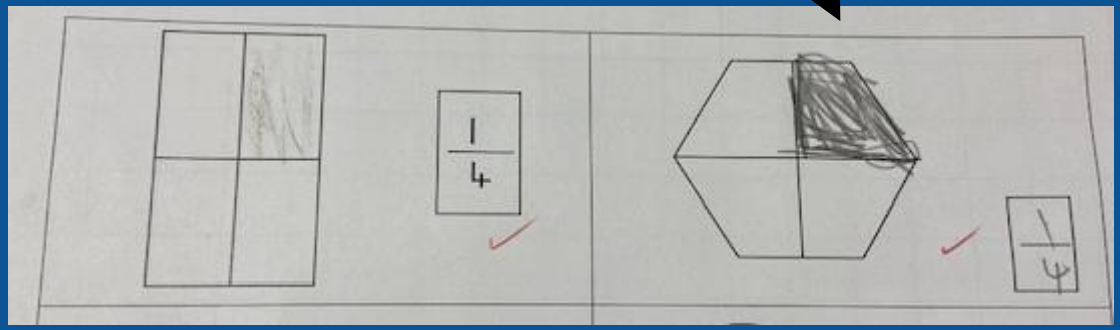


Number - fractions

Pupils should be taught to:

- recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity
- recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity

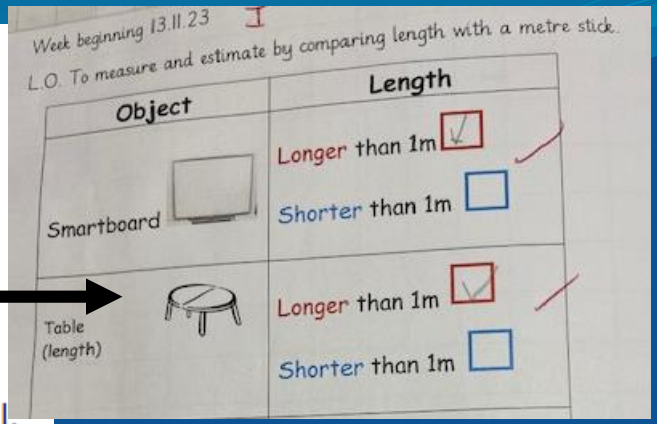


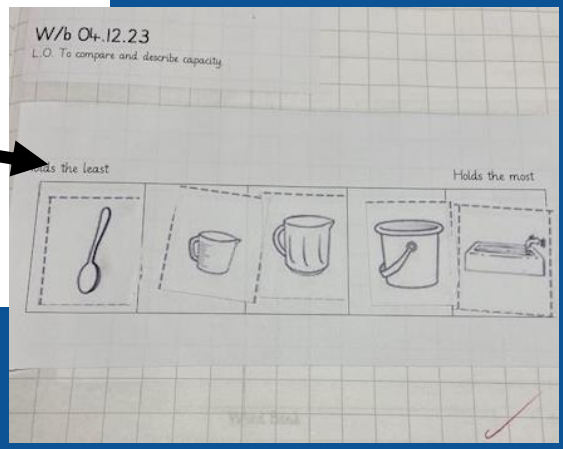


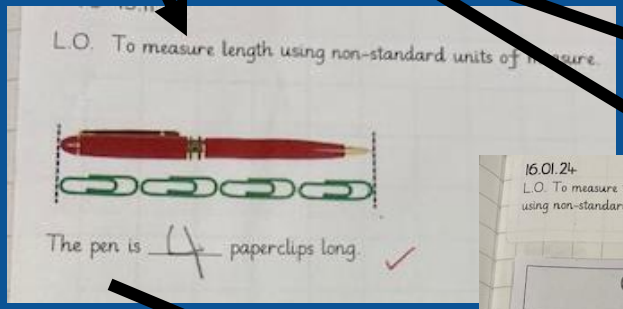
Measurement

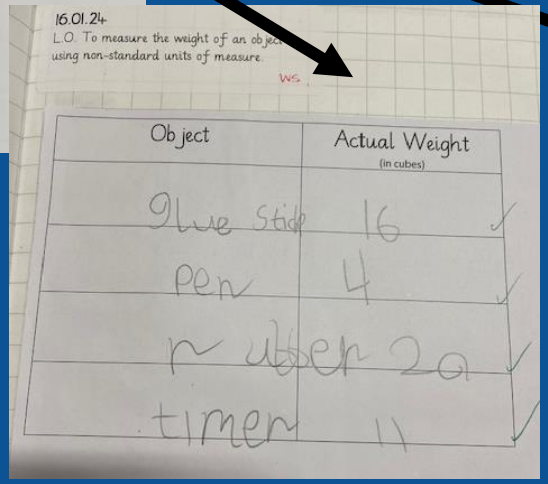
Pupils should be taught to:

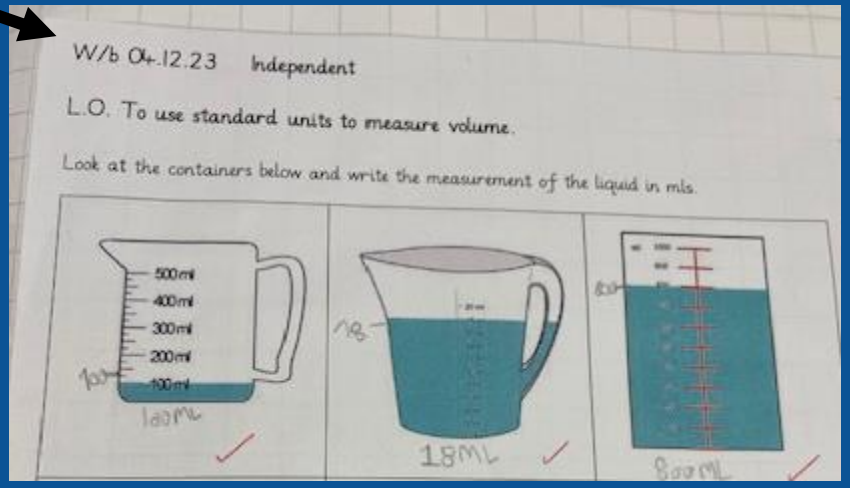
- compare, describe and solve practical problems for:
  - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
  - mass/weight [for example, heavy/light, heavier than, lighter than]
  - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
  - time [for example, quicker, slower, earlier, later]
- measure and begin to record the following:
  - lengths and heights
  - mass/weight
  - capacity and volume

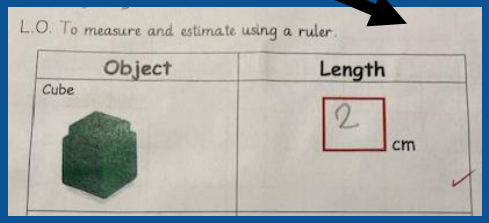








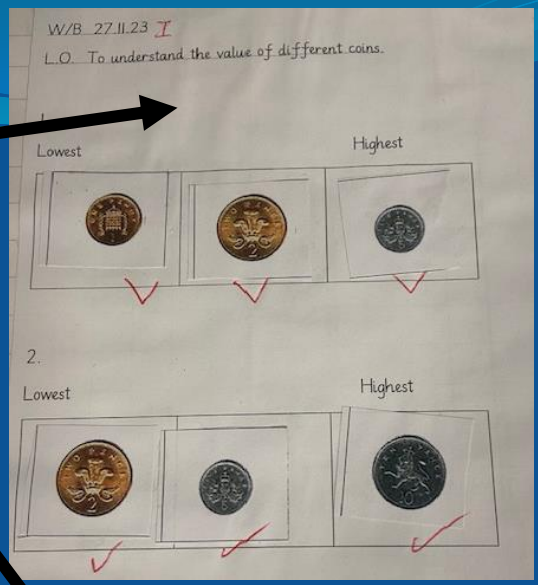


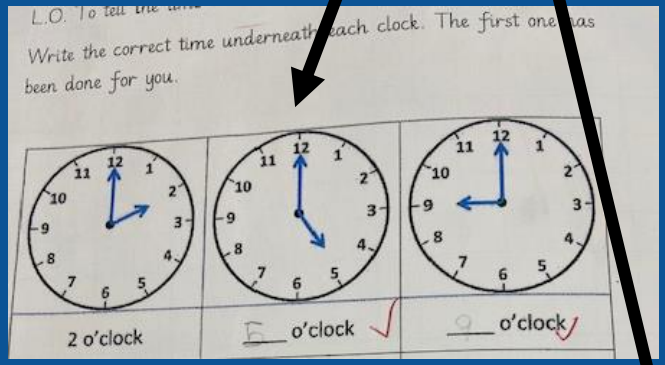


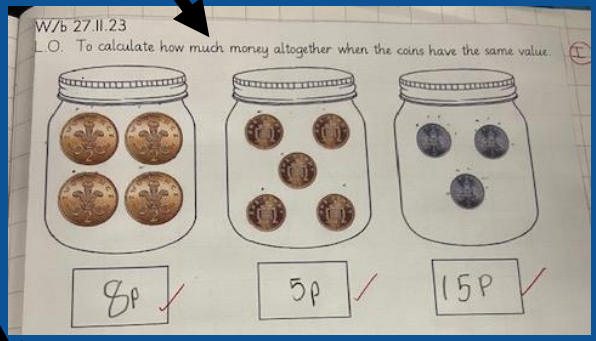
Measurement

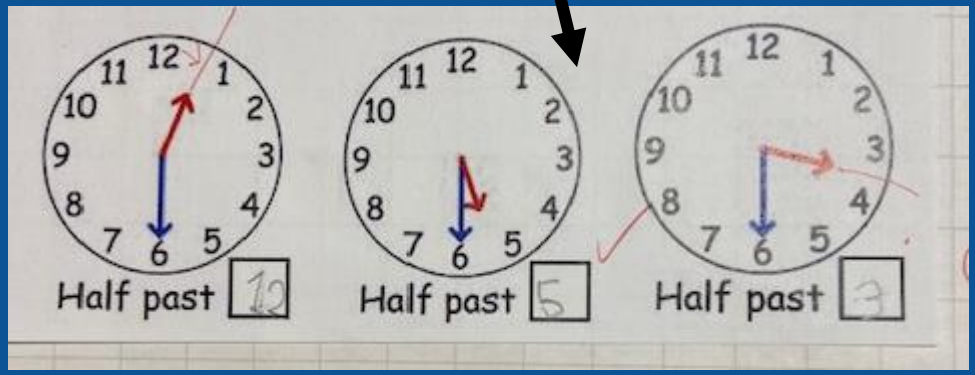
Pupils should be taught to:

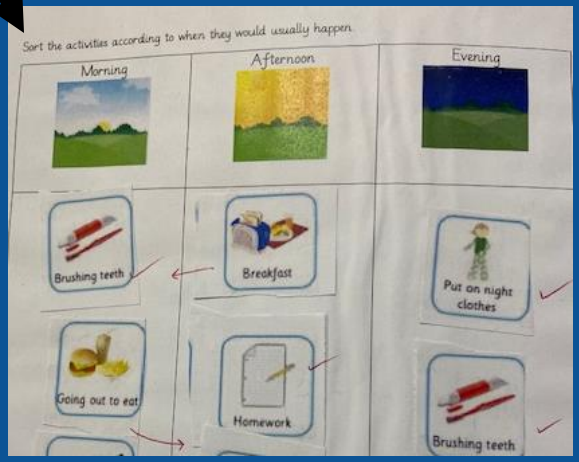
- time (hours, minutes, seconds)
- recognise and know the value of different denominations of coins and notes
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times







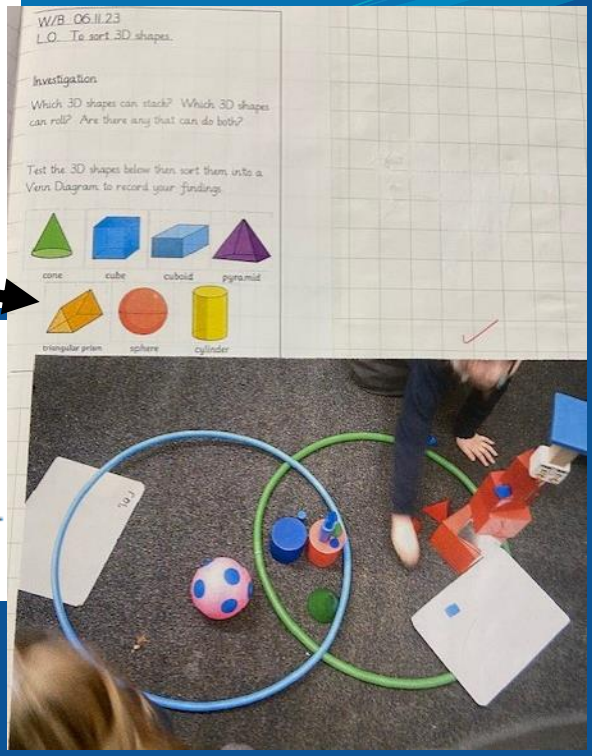




Geometry - properties of shapes

Pupils should be taught to:

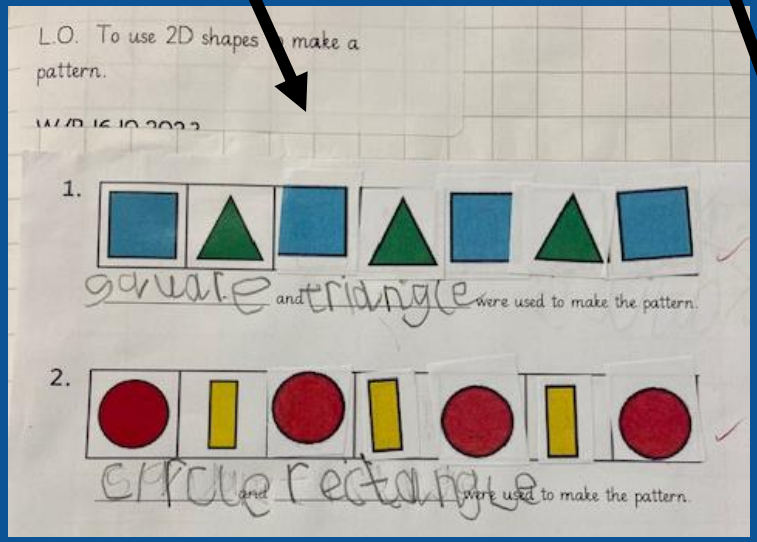
- recognise and name common 2-D and 3-D shapes, including:
  - 2-D shapes [for example, rectangles (including squares), circles and triangles]
  - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]

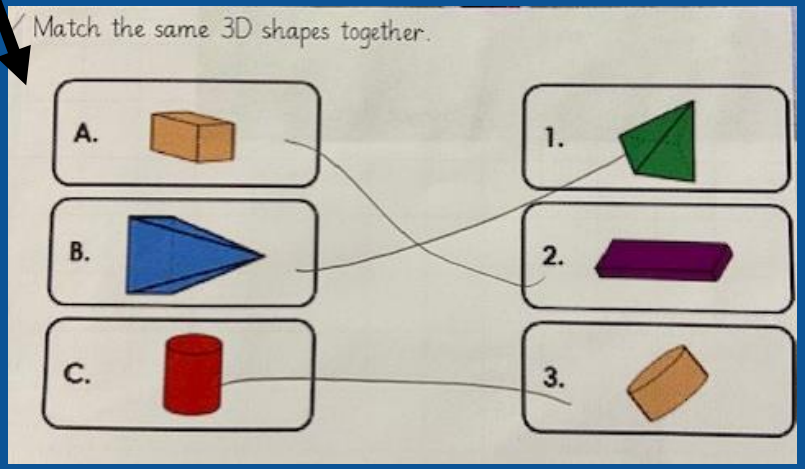


Geometry - position and direction

Pupils should be taught to:

- describe position, direction and movement, including whole, half, quarter and three-quarter turns





Home Learning

In the street

- Recognising bus numbers
- Number plate hunt. Who can find a 7?
- Comparing door numbers
- Counting – how many lamp posts on the way to school?

Home Learning

Doing the washing

- Counting in 2s – matching shoes/socks
- Sorting by colour and size.
- Matching/pairing up socks.
- Find four shoes that are different sizes. Can you put them in order.

Home Learning

Time

- What day is it yesterday, today, tomorrow?
- Use timers, phones and clocks to measure short periods of time.
- Count down 10/20 seconds to get to the table/ into bed etc.
- Recognising numbers on the clock. If you cover a number, what number was missing?

Home Learning

Food!

- Can you cut your toast into 4 pieces? Can you cut it into triangles?
- Setting the table. Counting the right number of plates etc. How many more do we need?
- Can you make shapes/ patterns out of the knives and forks. Can you put them in the right place in the drawers?
- Helping with the cooking by measuring and counting ingredients.
- Setting the timer.
- Positional language at dinner time: what is on the rice, where are the carrots etc?

Home Learning

Going shopping

- Reading price tags
- Counting items into the basket
- Finding and counting coins
- Using money to pay for items - change
- Comparing weights – which is heavier

Home Learning

Measuring

- Are you taller than a . . .?
- Marking height on the wall.
- Cut hand shapes out of paper. How many hands long is the couch? How long is the table? Which is longer?
- Count the steps on the stairs.
- How many steps from the gate to the front door?

Home Learning

Shapes

- Cut a potato into shapes (circles, triangle etc). Use with paint to make pictures and patterns.
- Cut out shapes from coloured paper/ newspaper and arrange into pictures.
- Shape hunt: Can you find a square in your house (windows etc), a circle . . .

Playdough – simple recipe

- 1 cup of plain flour
- 1 cup of water
- 1 tablespoon cooking oil
- 2 teaspoons cream of tartar
- Half a cup of salt
- food colouring and essences (optional)

Put all ingredients in a large saucepan, and heat slowly, stirring all the time until it forms a ball. Keep it wrapped in cling film or in a covered tub to stop it drying out.

Then . . .

- Make numerals and shapes
- Sort shapes into groups, or order by size
- Make long and short wiggly snakes.

- http://nrich.maths.org/early-years
- http://www.topmarks.co.uk/learning-to-count/teddy-numbers
- http://www.topmarks.co.uk/learning-to-count/underwater-counting
- http://www.topmarks.co.uk/learning-to-count/gingerbread-man-game
- http://www.topmarks.co.uk/learning-to-count/ladybird-spots
- http://www.crickweb.co.uk/Early-Years.html

Questions ???